Colorado Department of Public Health and Environment

Colorado Department of Public Health and Environment
Environmental Agriculture Program
CAFO Nutrient Management Plan (NMP)

RECEIVED
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ENVIRONMENTAL AGRICULTURE PROGRAM

I. GENERAL INFORMATION

Facility Name: Ribeye Feeders Ltd. **NPDES Permit Number: COA-932_**

Owner/Operator: Rodger John & Lindalyn Sue Nelson

Facility Physical Address: 29998 Otero County Road 19

City: Rocky Ford **State: C O** **Zip Code: 81067_____**

Facility Phone: 719-469-1394 **Email/Cell No.: rjlindy@centurytel.net/719-469-1394**

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME AND OFFICIAL TITLE (PRINT OR TYPE)	*B. PHONE NUMBER*
ROGER J NELSON	719-469-1394
C. SIGNATURE	*D. DATE SIGNED*
Roger J Nelson Pres	12-14-12

II. NUTRIENT MANAGEMENT PLAN INFORMATION[1]

NMP Public Notice Date: ____ **NMP Approval Date:** ____

NMP Implementation Date: ____ **NMP Revision Date[2]:** ____

Permit Expiration Date: ____

[1]*The Environmental Ag Program can provide this information if not known.*

[2]*Note to CAFOs: To revise a NMP, the CAFO must provide the Ag Program the most current version of the NMP and identify changes from the previous version (preferably in track changes or otherwise highlighted and clearly identified). The Ag Program will review the revised NMP to ensure that it meets applicable requirements including effluent standards. If the NMP changes necessitate revision to the terms incorporated into the CAFO's permit, the Ag Program will determine if such changes are substantial as described in Colorado Water Quality Control Commission Regulation No. 61, Colorado Discharge Permit System Regulations, 5CCR 1002-61,(Regulation No. 61).*

If the changes are deemed to be non-substantial, the Ag Program will revise the terms of the NMP that are already incorporated into the permit, notify the owner or operator, and inform the public of such changes (public notice not required). The revised NMP will then be added to the permit record.

If the changes to the terms of the NMP are deemed substantial, the Ag Program will provide public notice regarding the proposed changes on the CDPHE's website for a period of 10 business days. Information submitted by the CAFO in support of the NMP changes will be available for public review and comment upon request during this time. Once changes to the terms of the NMP are incorporated into the permit, the Ag Program will notify the CAFO and inform the public of the final decision concerning changes to the terms and conditions of the permit.

ASSOCIATED RECORDS: A current and approved version of the Nutrient Management Plan is kept on-site at the permitted facility at all times.

III. STORAGE OF MANURE AND PROCESS WASTEWATER

Adequate storage of manure and process wastewater is maintained, including the implementation of procedures to ensure proper operation and maintenance of the impoundments and tanks. [Regulation No. 61.17(8)(b)(iii)]

The following procedures are followed by the facility:

(A) Except during the designed storm event, manure and process wastewater stored in impoundments and terminal tanks is removed as necessary to maintain a minimum of two feet of freeboard or the Program-approved alternative freeboard level.

(B) Whenever the design capacity of impoundments and tanks is less than the volume required to store runoff from the designed storm event, the structures are dewatered to a level that restores the required capacity as soon as soils on a land application site have the water holding capacity to receive process wastewater.

Storage Needs

Manure volume generated annually by the facility: 3600 tons

Process wastewater volume generated annually by the facility:2,270,000 gallons

Process Wastewater Storage Information

Impoundment/ Tank/Drainage Basin ID	Total Capacity Required to Hold all Wastes Accumulated During the Storage Period (acre-feet)	Total Capacity Required to Contain Storm Event Runoff and Direct Precipitation (acre-feet)	Total Capacity Available (acre-feet)
West Pond	0.0	11.1	13.6
East Pond	0.0	3.3	5.1

Manure Storage Information:

Manure Storage Area ID	Amount of Manure Produced (tons/year)	Total Amount of Non-Pen Area Manure Storage Available (estimated volume)

Manure is transferred to a third party? [X] Yes [ ] No

Manure is stockpiled in pen area? [X] Yes [ ] No

ASSOCIATED RECORDS:

The facility maintains the following records to ensure adequate storage of manure and process wastewater:

1) Records documenting the current design of all manure storage structures, including volume of solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity.

2) Records documenting that manure and process wastewater stored in impoundments are removed (i.e. pumping records) as necessary to maintain a minimum of two feet of freeboard, or the Program-approved alternative freeboard level.

3) Weekly records of the depth of the manure and process wastewater in the liquid impoundment(s) and terminal storage tank as indicated by the required depth marker. Records include notation of the design storm pump-down level for each impoundment.

4) Daily records of inspections of water lines, including drinking water or cooling lines.

IV. ANIMAL MORTALITY MANAGEMENT

Animal mortalities (i.e., dead animals) are managed to prevent discharge of pollutants to surface water. Mortalities remain on the production area until disposal and are managed to ensure that they are not disposed of in a liquid manure, storm water, or process wastewater storage system that is not specifically designed to treat animal mortalities. [Regulation No. 61.17(8)(b)(iv)]

Method of Animal Mortalities Handling (check all that are applicable):

- ☐ Composting
- ☒ Rendering
- ☐ Burial
- ☐ Other: _____

Mortality Storage Area ID	Drainage	Impoundment/ Tank/Drainage Basin ID
	Drains to	
	Drains to	
	Drains to	
	Drains to	

ASSOCIATED RECORDS:

The facility maintains the following records to document proper management of mortalities:

1) Documentation demonstrating that animal mortalities are not disposed of in liquid manure, storm water, or process wastewater storage system that is not specifically designed to treat animal mortalities. Such records are maintained for a period of five years from the date created.

V. DIVERSION OF CLEAN WATER

Clean water is diverted, as appropriate, from the production area (i.e., from holding pens, manure and process wastewater storage systems, manure stockpiles, composting areas, etc.). [Regulation No. 61.17(8)(b)(v)]

Clean water is diverted from running onto the production area: ☒ Yes ☐ No

Clean water diversions used (check all that apply and indicate location where diversion is used):

		Location Used:
☐	Berms	Along County Road 19
☐	Channels	East South & Northwest side of pens
☐	Natural Topography	North side of pens
☐	Other	_____

ASSOCIATED RECORDS:

The facility maintains the following records to document appropriate diversion of clean water from production area:

1) Results of weekly visual inspections of the production area and weekly inspections of all storm water run-on diversion devices and structures.

VI. PREVENTION OF DIRECT CONTACT OF ANIMALS WITH SURFACE WATER

Confined animals are prevented from having direct contact with surface water that is defined as waters of the United States. *[Regulation No. 61.17(8)(b)(vi)]*

Waters of the United States means, in part:

a) All waters… susceptible to use in interstate or foreign commerce…;

b) All interstate waters…;

c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands[1] (including wetlands adjacent to waters identified in (a) through (e) of this definition), sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

   1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;

   2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

   3) Which are used or could be used for industrial purposes…;

d) All impoundments of waters otherwise defined as waters of the United States under this definition[2]; and

e) Tributaries of waters identified in paragraphs (a) through (d) of this definition.

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[1] Wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

[2] Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the federal Clean Water Act (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the U.S. This exclusion applies only to manmade bodies of water which neither was originally created in waters of the U.S. (such as disposal area in wetlands) nor resulted from the impoundment of waters of the U.S.

1. Waters of the United States flow through the production area? ☐ Yes ☒ No

2. Animals have access to waters of the United States? ☐ Yes ☒ No

3. If yes, list the measures (e.g. fencing) used in the production area to prevent direct contact of animals with waters of the United States: _____

ASSOCIATED RECORDS:

The facility maintains the following records to document that animals are prevented from direct contact with waters of the United States:

1) Documentation demonstrating prevention of direct contact of confined animals with waters of the U.S.

2) Records are maintained for a period of five years from the date created.

VII. CHEMICAL AND OTHER CONTAMINANT HANDLING

Chemicals and other contaminants are properly handled on-site and are not disposed of in any manure, storm water, or process wastewater storage system unless specifically designed to treat such chemicals and other contaminants. [Regulation No. 61,17(8)(b)(vii)]

Chemical disposal location: _____

☒ Chemicals are used and empty containers are disposed of in accordance with manufacturer's guidelines

☐ No chemicals are used at the facility

☐ Other: _____

*Chemicals storage location: shop_*

☒ Chemicals are not stored in a room with a floor drain that discharges outside (i.e., into the production area)

☒ Storage is covered

☐ Storage has secondary containment

☒ Chemicals are stored in proper containers

☐ Other: _____

ASSOCIATED RECORDS:

The facility maintains the following records to demonstrate proper handling of chemicals and other contaminants:

1) Documentation demonstrating that chemicals and other contaminants handled on-site are not disposed of in any manure, storm water, or process wastewater storage system unless specifically designed to treat such chemicals and other contaminants.
2) Records are maintained on-site for at least five years from the date created.

VIII. CONSERVATION PRACTICES

Site-specific conservation practices are identified and implemented to control runoff of pollutants to surface water. [Regulation No. 61.17(8)(b)(viii)]

Conservation practices include, but are not limited to the following:

- Solid manure is incorporated into the soils as soon as possible after application, unless the application site has perennial vegetation or is no-till cropped, or except where this nutrient management plan adequately demonstrates that surface water quality will be protected in areas where manure is not incorporated.
- Application of process wastewater to furrow- or flood-irrigated land application sites in a manner that prevents any process wastewater runoff into surface waters.
- When process wastewater is sprinkler-applied, the water holding capacity of the soil is not exceeded.
- Process wastewater is not applied to either frozen or flooded (i.e., saturated) land application sites.
- Manure or process wastewater is not applied within 150 feet of domestic water supply wells, or within 300 feet of community domestic water supply wells.

The facility implements the following best management practices to control runoff of pollutants to surface water. (check all that apply)

Conservation Practice	*Land Application Site ID Where Practice is Implemented
☐ Buffer	
☐ Setback	
☐ Conservation Tillage	
☐ Constructed Wetland	
☐ Infiltration Field	
☐ Grass Filter	
☐ Terrace	
☐ Tail Water Pit	
☐ Process wastewater is not allowed to reach end of field	
☐ Other (describe):	
☐ Other (describe):	
☐ Other (describe):	

***For land application sites where surface water is located in or down-gradient of the site.**

ASSOCIATED RECORDS:

The facility maintains the following records to document site-specific conservation practices:

1) Documentation demonstrating that site-specific conservation practices have been identified and implemented to control runoff of pollutants to surface water.
2) Copies of Ag Program approvals for alternative setbacks, if used.
2) Records are maintained on-site for at least five years from the date created.

IX. SAMPLING & TESTING OF MANURE, PROCESS WASTEWATER AND SOIL

Manure is analyzed a minimum of once per year for nitrogen and phosphorous content, and a minimum of once every five years for soils for phosphorous content. The results are used to determine application rates for manure and process wastewater. The following protocols are used to ensure appropriate sampling and testing of manure, process wastewater and soil. [Regulation No. 61.17(8)(b)(ix)]

What is the frequency of manure, litter and process wastewater sampling? Annually

Manure is transferred to a third party? ☒ Yes[1] ☐ No

Process wastewater is transferred to a third party? ☒ Yes[1] ☐ No

Frequency of soil sampling for nitrate: _____

Frequency of soil sampling for phosphorus: _____

	Required Sampling Frequency	Required Analysis	Sampling Protocol	Testing Protocol
Manure	Annually[2]	Total Nitrogen Ammonia (as N) Nitrate (as N) Total Phosphorus	CSU Cooperative Extension (CSUCE) 568 A	☒ CSUCE ☐ Program-approved Method *(requested in writing)*
Process Wastewater	Annually[2]	Total Nitrogen Ammonia (as N) Nitrate (as N) Total Phosphorus	CSUCE 568 A	☒ USEPA Method ☐ Program-approved Method *(requested in writing)*
Soil Nitrate	Annually at a *minimum*[3]	Nitrate in necessary depth zone(s)	☐ CSUCE 568 A ☐ Other *Specify*:	☐ "Methods of Soil Analysis, Part 3, Chemical Methods" ☐ Program-approved Method *(requested in writing)*
Soil Phosphorus	Every five years at a minimum[4]	[5]Phosphorus in necessary depth zone(s)	☐ CSUCE 568 A ☐ Other *Specify*:	☐ "Methods of Soil Analysis, Part 3, Chemical Methods" ☐ Program-approved Method *(requested in writing)*

[1] Note to CAFOs: Prior to transferring manure or process wastewater to other persons, Large CAFOs must provide the recipient of the manure or process wastewater with the most current nutrient analysis. Large CAFOs must retain for five years records of the date, recipient name and address, and approximate amount of manure or process wastewater transferred to another person.

[2] Manure and process wastewater are sampled and tested for nitrate as often as necessary to meet the application rate calculation requirements.

[3] If analyses are conducted more frequently than annual, the analysis results are kept on-site for five years.

[4] Soils are sampled and tested for phosphorus a minimum of once every five years or as necessary to meet the transport risk assessment requirements.

[5] Appropriate soil sampling depths for phosphorus will vary by cropping system based on the description of the Soil Test Phosphorus Risk Factor 2 from the Colorado Phosphorus Index Risk Assessment.

ASSOCIATED RECORDS:

The facility maintains the following records to document manure, process wastewater and soil testing:

1) A list of all protocols used for appropriate sampling and testing of manure, process wastewater and soil are maintained on-site for at least five years from the date created.

2) Results from sampling and testing of manure, process wastewater and soil are maintained on-site for at least five years from the date created.

Colorado Department of Public Health and Environment

Rest of this plan does not apply to Ribeye

X. LAND APPLICATION

Land application of manure or process wastewater is done in accordance v
practices that ensure appropriate agricultural utilization of the nutrients in
[Regulation No. 61.17(8)(b)(x) through (xii)]

Map(s) of land application sites are included in **Appendix A**.

Fields utilized for land application of manure and/or process wastewater a

Intended crops for each land application field are listed in Table B-2 in Ap
calculations for each crop are included in **Appendix C**.

Crop nutrient requirements are listed in Table B-3 in **Appendix B**.

The methodology outlined in this section is adhered to each year in order to determine nutrient application rates, as a term of the permit. Intended crop rotations are listed for each field; however, any crop in Table B-2 may be planted, as dictated by operating conditions. Nutrient applications and field nutrient balances are projected for the next five years, but these projections are for planning purposes only.

Limitations on application rates are determined in accordance with CSUCE Published Fertilizer Suggestions, or as otherwise listed in **Appendix D**. Maximum nutrient application rates are determined based on the following:

- The amount of N and P in the manure that will be plant available is determined using the CSUCE Published Fertilizer Suggestions for each crop.
- Nitrogen application rates (commercial fertilizer + plant available manure N) will not exceed crop N requirements (listed in Table 3) minus N credits:

	Crop N Uptake
–	Organic Matter N Mineralization
–	Past Year Legume N Credit
–	Past Year Manure N Credit
–	Soil Residual N
	Total N Application (Manure + Commercial Fertilizer)

- Nitrogen credits including organic matter mineralization, past year legume credits, past year manure credits, and soil residual N will be determined in accordance with CSUCE Published Fertilizer Suggestions, or other sources as listed in **Appendix D**, for each crop.
- The outcome of field-specific assessment of potential for nitrogen and phosphorus transport to surface water for each field, using the USDA, NRCS Colorado Phosphorus Index Risk Assessment tool or other Division-approved method. The Colorado Phosphorus Index Risk Assessment is detailed in **Appendix E**.
- Application calculations are included in **Appendix F**, including projected manure and process wastewater applications and field nutrient balances for five years.

ASSOCIATED RECORDS:

The facility maintains the following records to document land application in accordance with site-specific nutrient management practices:

1) *Documentation demonstrating that protocols established for land application of manure or process wastewater is* conducted in accordance with site-specific nutrient management practices.
2) Calculation records demonstrating appropriate agricultural utilization of the nutrients in the manure or process wastewater.

XI. LAND APPLICATION EQUIPMENT INSPECTIONS

Manure and process wastewater is applied as uniformly as possible with properly calibrated equipment. [Regulation No. 61.17(8)(b)(x)(B)]

1) Nutrient application equipment is calibrated at least annually? ☐ Yes ☐ No

2) Method(s) of process wastewater application? _____

3) Method(s) of manure application? _____

4) Nutrient application equipment is inspected within the six month period prior to the first application of *manure or process wastewater?* ☐ Yes ☐ No

5) Nutrient application equipment is inspected daily when wastewater is being applied? ☐ Yes ☐ No

ASSOCIATED RECORDS:

The facility maintains the following records to document equipment inspections:

1) Records documenting the date of periodic leak inspections of equipment used for land application of manure or process wastewater.

XII. SETBACK REQUIREMENTS

Manure and process wastewater is not applied closer than 100-feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural wellheads or other conduits to surface water. [Regulation No. 61.17(8)(f)(iv)]

1) 100-foot setbacks are used between land application sites and any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural wellheads, or other conduits to surface waters?

   ☐ Yes ☐ No

2) A 35-foot vegetated buffer is used between land application sites and all down-gradient water of the U.S., open tile intake structures, sinkholes, agricultural wellheads, or other conduits to waters of the U.S. where applications of manure, litter, or process wastewater are prohibited within the buffer.

   ☐ Yes ☐ No

3) A setback alternative (approved by the Ag Program) is used to provide pollutant reductions equivalent or better than the reduction that would be achieved by the 100-foot setback?

   ☐ Yes (please describe) ☐ No (please explain)

   Please describe: _____

The following combination of setbacks, buffers and/or approved alternatives are used, as indicated below:

	Compliance Practice Implemented [(1), (2) or (3) above]:	**Land Application Site ID Where Practice is Implemented:**
Down-gradient Surface Waters		
Open Tile Line Intake Structure		
Sinkholes		
Agricultural Wellheads		
Other Conduits to Surface Waters		

ASSOCIATED RECORDS:

The facility maintains the following records to document setback requirements:

1) Records documenting setbacks used, and/or Ag Program approval of any setback alternatives.

APPENDIX A

NUTRIENT MANAGEMENT PLAN TERMS (1 – 6)

1) LAND APPLICATION FIELD MAPS

APPENDIX B

NUTRIENT MANAGEMENT PLAN TERMS

2) LAND APPLICATION INFORMATION

NMP TERMS - 2) LAND APPLICATION FIELDS

All land application fields are listed below.

Table B-1 – Land Application Fields

Field Identification	Latitude[1]	Longitude[2]	Spreadable Acres[3]

[1]Enter latitude in decimal degrees.

[2]Enter longitude in decimal degrees [number should be negative (eg. -104.3315)].

[3]Field acreages reduced by any setbacks, buffers, or otherwise unspreadable areas.

NMP TERMS - 2) LAND APPLICATION CROPS

All potential crops or other uses for each land application field are listed below.

Table –B-2 – Potential Land Application Field Crops

Field Identification	Crop	Realistic Yield Goal (See Appendix C)	Yield Unit (bushels, tons, etc.)

NMP TERMS - 2) LAND APPLICATION CROP NUTRIENT NEEDS

Nutrient needs for each potential crop or other uses for each land application field are listed below.

Table B-3 – Crop Nutrient Needs

Crop	Yield Unit (bu, tons, etc.)	N Requirement (lbs/yield unit)	Information Source (see Appendix D)

APPENDIX C

NUTRIENT MANAGEMENT PLAN TERMS

3) EXPECTED CROP YIELD INFORMATION

3) CROP YIELD INFORMATION
REALISTIC YIELD GOAL WORKSHEET

Historical crop yield information source: http://www.nass.usda.gov/Data_and_Statistics/Quick_Stats_1.0/index.asp

Facility Name: _____

Field Identification: _____

Crop: _____

Column A	Column B		
Year	Yield	Units (bu/ac, tons, etc.)	Notes: (i.e. drought, flood)

TOTAL: _____ / _____ = _____ +10% _____

Total Bushels (Sum of Column B) | # of Years (from Column A) | Average | Realistic Yield Goal

REALISTIC YIELD GOAL WORKSHEET

Historical crop yield information source: http://www.nass.usda.gov/Data_and_Statistics/Quick_Stats_1.0/index.asp

Facility Name: _____

Field Identification: _____

Crop: _____

Column A	Column B		
Year	Yield	Units (bu/ac, tons, etc.)	Notes: (i.e. drought, flood)

TOTAL: _____ / _____ = _____ +10% _____

Total Bushels (Sum of Column B) | # of Years (from Column A) | Average | Realistic Yield Goal

APPENDIX D

NUTRIENT MANAGEMENT PLAN TERMS

4) NUTRIENT BUDGET INFORMATION

4) NUTRIENT BUDGET INFORMATION

Nutrient Budget Information:

Crop:	Manure and Process Wastewater Application Rate Calculated Using:	Description of Method to be Used (calculation, look-up table, etc.):
____	☐ CSUCE Published Fertilizer Suggestions ☐ Adjacent State CE-Published Fertilizer Suggestions ☐ CNMP Method that meets USDA-NRCS standards ☐ CO NRCS NMP guidelines ☐ Ag Program-approved Method	
____	☐ CSUCE Published Fertilizer Suggestions ☐ Adjacent State CE-Published Fertilizer Suggestions ☐ CNMP Method that meets USDA-NRCS standards ☐ CO NRCS NMP guidelines ☐ Ag Program-approved Method	
____	☐ CSUCE Published Fertilizer Suggestions ☐ Adjacent State CE-Published Fertilizer Suggestions ☐ CNMP Method that meets USDA-NRCS standards ☐ CO NRCS NMP guidelines ☐ Ag Program-approved Method	
____	☐ CSUCE Published Fertilizer Suggestions ☐ Adjacent State CE-Published Fertilizer Suggestions ☐ CNMP Method that meets USDA-NRCS standards ☐ CO NRCS NMP guidelines ☐ Ag Program-approved Method	
____	☐ CSUCE Published Fertilizer Suggestions ☐ Adjacent State CE-Published Fertilizer Suggestions ☐ CNMP Method that meets USDA-NRCS standards ☐ CO NRCS NMP guidelines ☐ Ag Program-approved Method	
____	☐ CSUCE Published Fertilizer Suggestions ☐ Adjacent State CE-Published Fertilizer Suggestions ☐ CNMP Method that meets USDA-NRCS standards ☐ CO NRCS NMP guidelines ☐ Ag Program-approved Method	
____	☐ CSUCE Published Fertilizer Suggestions ☐ Adjacent State CE-Published Fertilizer Suggestions ☐ CNMP Method that meets USDA-NRCS standards ☐ CO NRCS NMP guidelines ☐ Ag Program-approved Method	
____	☐ CSUCE Published Fertilizer Suggestions ☐ Adjacent State CE-Published Fertilizer Suggestions ☐ CNMP Method that meets USDA-NRCS standards ☐ CO NRCS NMP guidelines ☐ Ag Program-approved Method	

Realistic yield goals determined using worksheet(s) is Appendix C? ☐ Yes ☐ No

Realistic yield goals determined using methods other than worksheet(s) is Appendix C? ☐ Yes ☐ No
If yes, describe how realistic yield goals will be determined (crop insurance factors should not be added to yield goals):_____

APPENDIX E

NUTRIENT MANAGEMENT PLAN TERMS

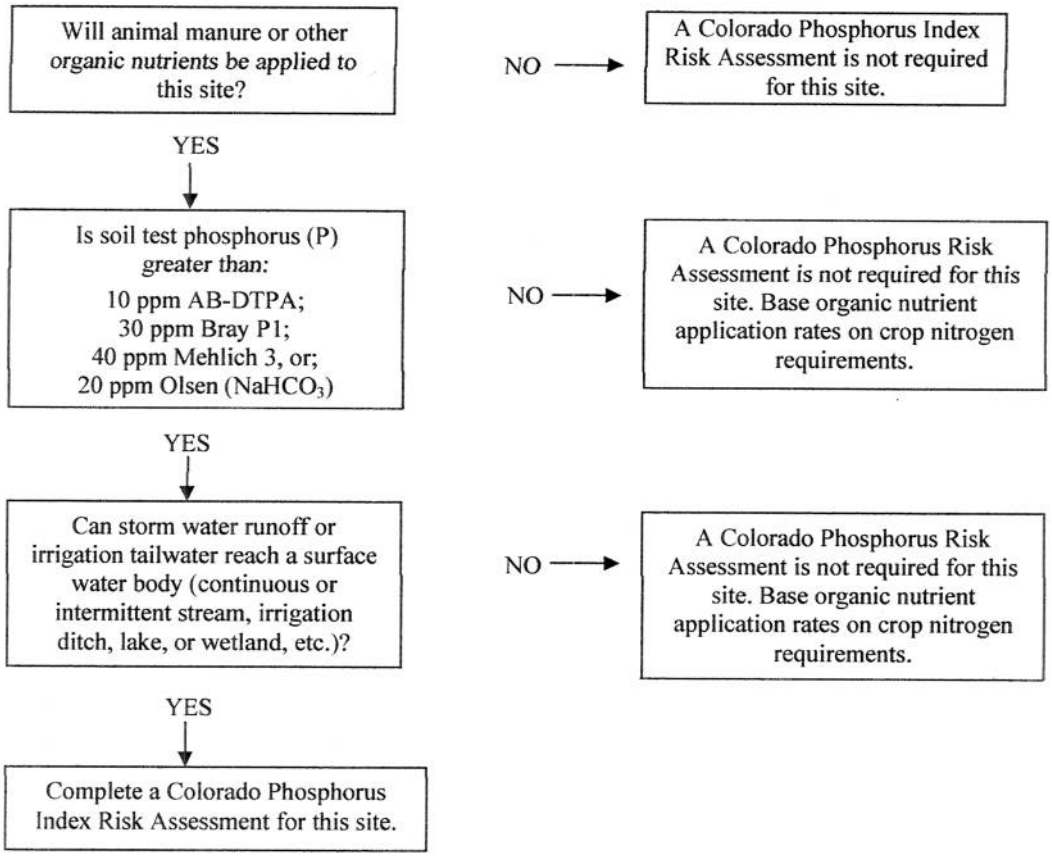
5) COLORADO PHOSPHORUS INDEX RISK ASSESSMENT

5) PHOSPHORUS AND NITROGEN TRANSPORT

Application rates for manure and process wastewater applied to land application sites minimize phosphorus and nitrogen transport from the application sites to surface waters. An initial assessment of the potential for phosphorus and nitrogen transport risk to surface water will be made prior to manure or process wastewater being applied to an application site. [Regulation No. 61.17(8)(b)(xii)(B)]

There is currently no published tool suitable for assessing nitrogen transport risk. Phosphorus and nitrogen transport risk will be assessed using the Colorado Phosphorus Index Risk Assessment.

The following flow chart will be used to determine if a phosphorus risk assessment must be completed for a land application site:



5) PHOSPHORUS AND NITROGEN TRANSPORT (continued)

For land application fields that require a Colorado Phosphorus Index Risk Assessment to be completed, the following applicable best management practices will be incorporated:

(A) Phosphorus-based manure and process wastewater application rates may be made to application sites where the risk of off-site phosphorus transport is scored as high.

(B) No application of manure or process wastewater will be made to land application sites where the risk of off-site phosphorus transport is rated as very high[1].

(C) No application of manure or process wastewater will be made to a land application site where the risk of off-site nitrogen transport to surface water is not minimized.

(D) Where a multi-year phosphorus application was made to a land application site, no additional manure or process wastewater will be applied to the same site in subsequent years until the applied phosphorus has been removed from the site via harvest and crop removal.

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[1] Where the initial assessment of a land application site scores very high, the facility has a three-year period within which to manage the site for the purpose of lowering the phosphorus transport risk assessment rating to high or lower. During this period, manure or process wastewater may be applied to the site at either nitrogen- or phosphorus-based rates.

After completing an initial assessment of the potential for phosphorus and/or nitrogen transport from a land application site to surface water, additional assessments will be made every five years or at the frequency described below, whichever is sooner:

Cause for Re-Assessment	Frequency
Where a crop management change has occurred	For phosphorus - Assess within one year after such a change would reasonably result in an increase in the transport risk assessment score. For nitrogen – Assess within one year after such a change would reasonably result in the nitrogen transport to surface water not being minimized.
Where a phosphorus transport risk assessment score was very high	Assess phosphorus transport risk within six months of intending to apply manure or process wastewater, except where the initial assessment is scored as very high, then there shall be a three-year period within which to manage the site for the purpose of lowering the phosphorus transport risk assessment rating to high or less. During this period, manure or process wastewater may be applied to the site at either nitrogen- or phosphorus-based rates.
Where a nitrogen transport risk assessment reveals that nitrogen transport to surface water is not minimized	Assess nitrogen transport risk within six months of intending to apply manure or process wastewater.

ASSOCIATED RECORDS:

1) Copies of phosphorus/nitrogen transport risk assessments are maintained on-site.

APPENDIX F

NUTRIENT MANAGEMENT PLAN TERMS

6) FIELD NUTRIENT BALANCE CALCULATIONS

6) FIELD NUTRIENT BALANCE CALCULATIONS SHEET

(Conduct calculations for each crop, for each field)

Facility Name:_____ **Permit Number:**_____

Land Application Site Name:_____ **Date:**_____

Table F-1

Crop sequence/rotation and year (circle current crop)						Realistic Yield Goal (of current year)
Year						
Crop						

Table F-2

Current soil test levels (ppm or lb/ac)							
Soil Test Date	N* (as NO_3-N)	P*	*Phosphorus Test Extraction Used (AB-DTPA, Bray, Mehlich, $NaHCO_3$)*	K	pH	CEC	O.M.%

*Must be tested

Table F-3

Recommended nutrients/amendments to meet realistic yield goal (see Appendix B, Table B-3)				
N[1]	P_2O_5	K_2O	Lime	Other:

[1] N number is based on removal, rather than on soil test NO_3-N carryover from the previous crop. Use this value to complete line 10 on Table F-4 below.

Table F-4

Nutrient Sources		N
		[2]*lbs/ac*
1. Nitrogen credits from previous legume crop		
2. Nitrogen credit from irrigation water		
3. Other (e.g., *soil organic matter mineralization, atmospheric deposition/evaporation*)		
4. Soil nitrogen credit		
5. **Total credits**		
		N
6. Credits (from row 5 above)		
7. Plant available nitrogen (PAN) content of manure, litter, and process wastewater		
8. Fertilizer	Starter	
	Other	
9. **Subtotal (sum of line 6, 7, and 8)**		
10. **Nitrogen recommended (from *Table F-3*)**		
11. **Nitrogen Status (subtract line 10 from line 9)**		
If line 11 is a negative number, this is the amount of additional nutrients needed to meet the crop recommendations.		
If line 11 is a positive number, this is the amount by which the available nutrients exceed the crop requirements.		

[2]Use the same units for each line in Table F-4. Include documentation of unit conversion factors used, if any.

Nutrient Management Specifications				
Amount to be applied (lb/ac)	**N:**	**P_2O_5:**	**K_2O:**	**Other:**

Predicted method, form, and timing of application:_____

APPENDIX G

RECORDKEEPING CHECKLIST

Recordkeeping Checklist

The following records are maintained on-site as stated in the NMP and are required by the permit:

- ☐ A current and approved version of the Nutrient Management Plan.
- ☐ Documentation of the current design of all manure storage structures, including volume of solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity.
- ☐ *Documentation that manure and process wastewater stored in impoundments is removed (i.e. pumping* records) as necessary to maintain a minimum of two feet of freeboard, or the Program-approved alternative freeboard level.
- ☐ Weekly documentation of the depth of the manure and process wastewater in the liquid impoundment(s) and terminal storage tank as indicated by the required depth marker. Records include notation of the design storm pump-down level for each impoundment.
- ☐ Daily documentation of inspections of water lines, including drinking water lines or cooling lines.
- ☐ Documentation demonstrating that animal mortalities are not disposed of in liquid manure, storm water, or process wastewater storage system that is not specifically designed to treat animal mortalities.
- ☐ Weekly documentation of visual inspections of the production area.
- ☐ Weekly documentation of inspections of all storm water run-on diversion devices and structures.
- ☐ Documentation demonstrating prevention of direct contact of confined animals with waters of the U.S.
- ☐ Documentation demonstrating that chemicals and other contaminants handled on-site are not disposed of in any manure, storm water, or process wastewater storage system unless specifically designed to treat such chemicals and other contaminants.
- ☐ Documentation demonstrating that site-specific conservation practices have been identified and implemented to control runoff of pollutants to surface water.
- ☐ Documentation of all protocols used for appropriate sampling and testing of manure, process wastewater and soil.
- ☐ *Results from sampling and testing of manure, process wastewater and soil.*
- ☐ Documentation demonstrating that protocols established for land application of manure or process wastewater is conducted in accordance with site-specific nutrient management practices.
- ☐ Calculations demonstrating appropriate agricultural utilization of the nutrients in the manure or process wastewater.
- ☐ Documentation of the date of periodic leak inspections of equipment used for land application of manure or process wastewater.
- ☐ Documentation of setbacks used, and/or Ag Program approval of any setback alternatives.

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Ribeye Feeders Ltd. East Pond
Liner Recertification

Ribeye Feeders Ltd. has two storm water runoff containment ponds for the open lot storm water runoff. Liner retesting of the east pond was completed on December 3, 2012. This pond is situated in clay soil deposits which serve as the pond's liner.

A falling head seepage test was performed on the pond liner to measure the liner seepage rate. The test was conducted during November. 2012. The test was conducted by installing a 4 inch standpipe 12 inches into the pond's liner and then filling the standpipe with water and capping the standpipe to eliminate evaporative loss and precipitation gain. The resulting fall in water head over the test period replicates the amount of seepage through the liner. The static water head in the standpipe was greater than the high water level of the pond. Over the 19 day test period the static water level dropped 1.3 centimeters. Thus, the measured seepage rate for the east pond was 7.9 x 10-7 cm/sec (1.3 cm/19 days/24 hr/day/60 min/hr/60 sec/min).

The test standpipe was removed from the pond liner at the conclusion of the seepage test and the resulting pipe intrusion was filled with clay liner material and compacted so that the liner integrity was maintained

Based on the seepage test results of the clay liner for the Ribeye Feeders Ltd. east storm water run off containment pond, which is located in the SW, S6, T23S, R56W, with a physical location at the intersection of Otero County Roads 19 & GG; I certify that the containment pond liner of east pond meets the Colorado Water Quality Control Commission Regulation 81 required seepage rate of 1 x 10-6 cm/sec.

December 5, 2012

Certified by Derald Lang, P.E. #12045

CHECKLIST FOR CAFO PERMIT APPLICATION REVIEW

Name of Applicant Ribeye Feeders, LTD Recv'd 12/21/2012

APPLICATION REVIEW CoA 932030 Rev. 1-2-2013	INCLUDED: YES	INCLUDED: NO
Section I - Application Type		
Type of Application Indicated (check box checked)		
Section II - Applicant Info		
Facility Owner		
Facility Owner Address		
Facility Owner Contact Info		
Facility Operator		
Facility Operator Address		
Facility Operator Contact Info		
Legal Contact		
Registered Agent Identified		
Registered Agent Contact Ifo		
On-site Contact Information		
Section III - Location Info		
Facility Name		
Facility Location		
Lattitude and Longitude		
Legal Description		
Attachment A - Location Map		
Location & outline of each production & land application area		
Location and depths of all functional wells, including monitoring wells, within a 1/2-mile radius of the center of the production areas		
Name & location of public roads located within one mile of the production area		
Name & location of the surface water(s) that will receive discharge(s) from each retention structure		
Attachment B - Site Plan		
Drainage patterns from production area(s)		
Label structures, including covered buildings or sheds, pens, milking parlors, office, confined production buildings, egg washing buildings, and other significant structures		
Label manure storage areas		
Label composting areas		
Label impoundments, tanks and wastewater tanks		
Label lift stations and piping to impoundments and wastewater tanks		
Label transfer piping between impoundments, wastewater tanks, manure separation systems, pens, and lift stations		
Label berms, including run-on diversion berms		
Label process wastewater conveyances		
Location of 100-year flood plain within the area		
Location after each impoundment where a planned discharge to waters of the U.S. will occur and where effluent samples will be collected		